

**PENDING CLAIMS 1-28**

1. (Twice Amended) A process for storing data, comprising  
providing a back up server having storage for a plurality of data files,  
providing a long term memory device having a plurality of data storage elements and a  
processor for coordinating the operation of the plural data storage elements,  
directing the processor to store data on the data storage elements and for recording a time  
signal representative of the time of recording data,  
detecting a condition representative of each data storage element having reached capacity,  
and  
based on the condition, directing the processor to compare the time signals for each data  
storage element to store data on the data storage element having the earliest recorded data.
2. A process according to claim 1, wherein the long term memory device includes a tape  
library system having a plurality of drive elements.
3. A process according to claim 2, wherein the tape library includes a robotic controller for  
moving tapes in and out of a tape drive system.
4. A process according to claim 1, wherein the long term memory device includes a raid  
storage system.
5. (Twice Amended) A process according to claim 1, wherein directing the processor to store  
data on the data storage elements includes directing the processor to store data on each data  
storage element until each data storage element reaches capacity.
6. A method of storing data comprising:  
detecting a condition representing a storage capacity of at least one of at least two data  
storage elements; and,  
based on the detected condition, storing the data on the data storage element associated  
with an earliest time of storage.
7. The method of claim 6, wherein storing the data on the data storage element associated  
with an earliest time of storage comprises:  
associating at least one time of storage with the at least two data storage elements.
8. The method of claim 6, wherein storing the data on the data storage element associated  
with an earliest time of storage comprises:  
comparing at least one time of storage associated with the at least two data storage  
elements; and  
identifying the data storage element associated with the earliest time of storage.
9. The method of claim 6, further comprising:  
providing a storage system including the at least two data storage elements and a  
processor for controlling data storage on the at least two data storage elements.

10. The method of claim 9, wherein the storage system includes at least one of a tape library system, a hard disk system, a read/write CD-ROM system, and a RAID system.
11. The method of claim 10, wherein the storage system includes a tape library system having a library of tapes, a tape drive, and a robotic controller for moving tapes between the library and the tape drive.
12. A method of storing data comprising:  
detecting a condition representing a storage capacity of at least one of at least two data storage elements;  
based on the detected condition, determining whether at least one of the at least two data storage elements includes available capacity; and,  
based on whether at least one of the at least two data storage elements includes available capacity, storing the data on the data storage element associated with an earliest time of storage.
13. The method of claim 12, wherein storing the data on the data storage element associated with an earliest time of storage comprises:  
associating at least one time of storage with the at least two data storage elements.
14. The method of claim 12, wherein storing the data on the data storage element associated with an earliest time of storage comprises:  
comparing at least one time of storage associated with the at least two data storage elements; and  
identifying the data storage element associated with the earliest time of storage.
15. The method of claim 12, further comprising:  
based on whether at least one of the at least two data storage elements includes available capacity, storing the data on the at least one data storage element including available capacity.
16. The method of claim 15, wherein storing the data on the at least one data storage element including available capacity comprises:  
storing the data on the at least one data storage element including available capacity until the at least one data storage element reaches capacity.
17. A method of storing data comprising:  
detecting a condition representing a storage capacity for at least one of at least two data storage elements;  
based on the detected condition, determining whether at least one of the at least two data storage elements includes available capacity; and,  
based on whether at least one of the at least two data storage elements includes available capacity, storing the data on the at least one data storage element including available capacity.
18. The method of claim 17, wherein storing the data on the at least one data storage element including available capacity comprises:  
storing the data on the at least one data storage element including available capacity until the at least one data storage element reaches capacity.

19. A processor program for storing data, the processor program being tangibly stored on a processor-readable medium and comprising instructions operable to cause a processor to:  
detect a condition representing a storage capacity of at least one of at least two data storage elements; and,  
based on the detected condition, store the data on the data storage element associated with an earliest time of storage.
20. The processor program of claim 19, further comprising instructions operable to cause a processor to:  
associate at least one time of storage with the at least two data storage elements.
21. The processor program of claim 19, further comprising instructions operable to cause a processor to:  
compare at least one time of storage associated with the at least two data storage elements;  
and  
identify the data storage element associated with the earliest time of storage.
22. A processor program for storing data, the processor program being tangibly stored on a processor-readable medium and comprising instructions operable to cause a processor to:  
detect a condition representing a storage capacity of at least one of at least two data storage elements;  
based on the detected condition, determine whether at least one of the at least two data storage elements includes available capacity; and,  
based on whether at least one of the at least two data storage elements includes available capacity, store the data on the data storage element associated with an earliest time of storage.
23. The processor program of claim 22, wherein the instructions to store the data on the data storage element associated with an earliest time of storage comprise instructions to:  
associate at least one time of storage with the at least two data storage elements.
24. The processor program of claim 22, wherein the instructions to store the data on the data storage element associated with an earliest time of storage comprise instructions to:  
compare at least one time of storage associated with the at least two data storage elements;  
and,  
identify the data storage element associated with the earliest time of storage.
25. The processor program of claim 22, further comprising instructions operable to cause a processor to:  
based on whether at least one of the at least two data storage elements includes available capacity, storing the data on the at least one data storage element including available capacity.
26. The processor program of claim 25, wherein the instructions to store the data on the at least one data storage element including available capacity comprise instructions to:  
store the data on the at least one data storage element including available capacity until the at least one data storage element reaches capacity.

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27. A processor program for storing data, the processor program being tangibly stored on a processor-readable medium and comprising instructions operable to cause a processor to:  
detect a condition representing a storage capacity for at least one of at least two data storage elements;  
based on the detected condition, determine whether at least one of the at least two data storage elements includes available capacity; and,  
based on whether at least one of the at least two data storage elements includes available capacity, store the data on the at least one data storage element including available capacity.
28. The processor program of claim 27, wherein the instructions to store the data on the at least one data storage element including available capacity comprise instructions to:  
store the data on the at least one data storage element including available capacity until the at least one data storage element reaches capacity.
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